REMARKS

Reconsideration is requested for claims 2, 4-7, 9-16, 18-26, 28, and 30-31. Claims 1, 3, 8, and 17 have been canceled. Claims 4-5, 9-14, and 18-25 stand withdrawn as being directed to a non-elected species.

Claims 27 and 29 have been allowed. Claims 28 and 30 were indicated to be allowable if amended to overcome a rejection under 35 U.S.C. § 112, second paragraph. Claims 28 and 30 have been amended to overcome the rejection and allowance is cordially urged.

Claims 6-7, 15-16, 28, and 30 were rejected under 35 U.S.C. § 112, second paragraph. The claims have been amended to address the rejection and withdrawal of the rejection is cordially urged. Claims drawn to non-elected species have also been amended in view of the grounds for rejection.

Claims 2 and 26 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,576,009 to *Ogushi et al.*,[1] with specific reference being made to the structure of FIG. 9.

Claim 2 defines a thermal transport system comprising an evaporator for receiving heat generated at a heat generation unit, wherein the evaporator comprises a) a liquid reservoir for accommodating liquid-phase working fluid, b) a liquid supply port for supplying liquid-phase working fluid to the liquid reservoir, c) a vapor ejection port for ejecting from the evaporator, working fluid vaporized at the evaporator, and d) a liquid

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[1]The Official Action refers to "Ugushi et al." It is assumed that this is a typographical error.

ejection port for ejecting from the evaporator, liquid-phase working fluid accommodated in the liquid reservoir. The system further comprises a reservoir tank connected to the evaporator at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator when a liquid-phase working fluid level is below the desired level.

It is not clear what components of the device in *Ogushi et al.* are alleged to correspond to the features and steps of claims 2 and 26. It is noted, first, that reference numerals 112, 114, and 115 show a porous material, not liquid. It is respectfully submitted that no structure in *Ogushi et al.* can be shown to correspond to the claimed combination of a reservoir tank, and evaporator with a liquid reservoir and both a liquid supply port and a liquid ejection port.

Claim 26 defines a thermal transport method using an evaporator for receiving heat generated at a heat generation unit. According to the method, liquid-phase working fluid is supplied to the evaporator, liquid-phase working fluid supplied to the evaporator by the supplying step is accommodated in the evaporator, working fluid vaporized at the evaporator is ejected from the evaporator, liquid-phase working fluid supplied to the evaporator by the supplying step and accommodated in the evaporator by the accommodating step is ejected from the evaporator, and an amount of liquid-phase working fluid in the evaporator is adjusted by supplying liquid phase working fluid to the evaporator from a reservoir connected to the evaporator at a liquid ejection port of the evaporator when a level of the liquid-phase working fluid is below a desired level and ejecting liquid-

phase working fluid from the evaporator through the liquid ejection port and into the reservoir when the level of the liquid-phase working fluid is above the desired level.

Ogushi et al. does not disclose or suggest the combination of steps of claim 26. As noted above with regard to claim 2, reference numerals 112, 114, and 115 refer to porous material, not liquid, and no relationship between the recited steps and the disclosure of *Ogushi et al.* is seen to exist.

In view of the differences between claim 26 and *Ogushi et al.*, it is respectfully submitted that claim 26 is not anticipated by *Ogushi et al.*

Claims 6-7, 15-16, and 31 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,677,336 to *Moore, Jr. Moore, Jr.*, is cited as disclosing a system including a heat sink or condensing section 236 (FIG. 18) that is connected to an outlet of a vaporizer 230 from which it receives vapor V, and that is connected to an inlet of another vaporizer 222 to which it supplies liquid L. It is asserted that the condensing section 236 corresponds to a reservoir. Independent claims 6, 15, and 31 have been amended to clarify that the heat absorber includes both a condenser and a reservoir. It is respectfully submitted that no new issues are raised by the amendments in that it should have been apparent that if a condenser were equated with the recited reservoir, the heat absorber claims would likely be amended in the manner proposed herein. Claim 31 has, in addition, been amended to recite method steps such as might be performed using equipment as defined by, e.g., claims 6 and 15.

Claim 6 defines a heat absorber including a plurality of evaporators serially connected in different positions for receiving heat generated at heat generation units. Each

evaporator includes a liquid reservoir for accommodating liquid-phase working fluid, a liquid supply port for supplying liquid-phase working fluid to the liquid reservoir, a vapor ejection port for ejecting from the evaporator, working fluid vaporized at the evaporator, a liquid ejection port for ejecting from the evaporator, and liquid-phase working fluid accommodated in the liquid reservoir, a condenser in series with the plurality of evaporators, and a reservoir tank connected to an evaporator of the last position of the plurality of evaporators at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator of the last position when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator of the last position when a liquid-phase working fluid level is below the desired level.

Moore et al. does not disclose a combination of features including a condenser in series with the plurality of evaporators, and a reservoir tank connected to an evaporator of the last position of the plurality of evaporators at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator of the last position when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator of the last position when a liquid-phase working fluid level is below the desired level as recited in claim 6.

In view of the differences between claim 6 and *Moore, Jr.*, it is respectfully submitted that claim 6 and the claims dependent therefrom are not anticipated by *Moore, Jr.*

Claim 15 defines a thermal transport system including a plurality of evaporators serially connected in different positions for receiving heat generated at heat generation units and a condenser for rejecting heat. Each evaporator includes a liquid reservoir for

accommodating liquid-phase working fluid, a liquid supply port for supplying liquid-phase working fluid to the liquid reservoir, a vapor ejection port for ejecting from the evaporator, working fluid vaporized at the evaporator, a liquid ejection port for ejecting from the evaporator, liquid-phase working fluid accommodated in the liquid reservoir, a condenser in series with the plurality of evaporators, and a reservoir tank connected to the evaporator at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator when a liquid-phase working fluid level is below the desired level.

Moore et al. does not disclose a combination of features including a condenser in series with the plurality of evaporators, and a reservoir tank connected to the evaporator at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator when a liquid-phase working fluid level is below a desired level as recited in claim 15.

In view of the differences between claim 15 and *Moore, Jr.*, it is respectfully submitted that claim 15 and the claims dependent therefrom are not anticipated by *Moore, Jr.*

Claim 31 defines a thermal transport method using a plurality of evaporators serially connected in different positions for receiving heat generated at a heat generation unit. According to the method, substantially only liquid-phase working fluid is supplied to each evaporator of the plurality of evaporators, liquid-phase working fluid supplied to each

evaporator of the plurality of evaporators is accommodated, in each evaporator of the plurality of evaporators, during the supplying step, working fluid vaporized at each evaporator of the plurality of evaporators is ejected from a vapor ejection port of each evaporator of the plurality of evaporators, substantially only liquid-phase working fluid supplied to each evaporator of the plurality of evaporators is ejected from a liquid ejection port of each evaporator of the plurality of evaporators during the supplying step and accommodated by each evaporator of the plurality of evaporators during the accommodating step, working fluid vaporized by the plurality of evaporators is condensed in a condenser, excess liquid-phase working fluid is received from a last evaporator of the plurality of evaporators in a reservoir tank connected to the last evaporator at a liquid ejection port thereof when a liquid-phase working fluid level is above a desired level, and liquid-phase working fluid is supplied to the last evaporator from the reservoir when a liquid-phase working fluid level is below the desired level.

Moore, Jr., does not disclose or suggest the steps or combination of steps of claim 31 including condensing working fluid vaporized by the plurality of evaporators in a condenser, receiving excess liquid-phase working fluid from a last evaporator of the plurality of evaporators in a reservoir tank connected to the last evaporator at a liquid ejection port thereof when a liquid-phase working fluid level is above a desired level, and supplying liquid-phase working fluid to the last evaporator from the reservoir when a liquid-phase working fluid level is below the desired level.

In view of the differences between claim 31 and *Moore, Jr.*, it is respectfully submitted that claim 31 is not anticipated by *Moore, Jr.*

It is respectfully submitted that all of the pending claims are in condition for allowance. Allowance is cordially urged.

If the Examiner should be of the opinion that a telephone conference would be helpful in resolving any outstanding issues, the Examiner is urged to contact the undersigned.

Respectfully submitted,

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APPENDIX

Kindly amend the claims as follows:

2. (Twice Amended) A thermal transport system comprising:

an evaporator for receiving heat generated at a heat generation unit, wherein the evaporator comprises:

a) a liquid reservoir for accommodating liquid-phase working fluid;

b) a liquid supply port for supplying liquid-phase working fluid to the liquid reservoir;

c) a vapor ejection port for ejecting from the evaporator, working fluid vaporized at the evaporator; and

d) a liquid ejection port for ejecting from the evaporator, liquid-phase working fluid accommodated in the liquid reservoir; and

[e)] a reservoir tank connected to the evaporator at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator when a liquid-phase working fluid level is below the desired level.

6. (Twice Amended) A heat absorber comprising:

a plurality of evaporators serially connected in different positions for receiving heat generated at heat generation units, wherein each evaporator comprises:

a) a liquid reservoir for accommodating liquid-phase working fluid;

b) a liquid supply port for supplying liquid-phase working fluid to the liquid reservoir;

c) a vapor ejection port for ejecting from the evaporator, working fluid vaporized at the evaporator; and

d) a liquid ejection port for ejecting from the evaporator, liquid-phase working fluid accommodated in the liquid reservoir;

a condenser in series with the plurality of evaporators; and

[(e)] a reservoir tank connected to [the] an evaporator of the last position of the plurality of evaporators at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator of the last position when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator of the last position when a liquid-phase working fluid level is below the desired level.

7. (Amended) The heat absorber according to claim 6, wherein the liquid ejection port of [the evaporator] evaporators of the plurality of evaporators excluding the evaporator of the last position is connected to the liquid supply port of [the] an evaporator of the next position of the plurality of evaporators.

9. (Amended) The heat absorber according to claim 6, wherein a capacity of the liquid reservoir of the evaporator of the last position is larger than a capacity of the liquid reservoir of [the evaporator] evaporators of other positions of the plurality of evaporators.

15. (Twice Amended) A thermal transport system comprising:

a plurality of evaporators serially connected in different positions for receiving heat generated at heat generation units and a condenser for rejecting heat, wherein each evaporator comprises:

a) a liquid reservoir for accommodating liquid-phase working fluid;

b) a liquid supply port for supplying liquid-phase working fluid to the liquid reservoir;

c) a vapor ejection port for ejecting from the evaporator, working fluid vaporized at the evaporator; and

d) a liquid ejection port for ejecting from the evaporator, liquid-phase working fluid accommodated in the liquid reservoir;

a condenser in series with the plurality of evaporators; and

[e)] a reservoir tank connected to [the] an evaporator of the last position of the plurality of evaporators serially connected in different positions at the liquid ejection port and adapted to receive excess liquid-phase working fluid from the evaporator of the last position when a liquid-phase working fluid level is above a desired level and to supply liquid-phase working fluid to the evaporator of the last position when a liquid-phase working fluid level is below the desired level.

16. (Amended) The heat absorber according to claim 15, wherein the liquid ejection port of [the evaporator] evaporators of the plurality of evaporators excluding the

evaporator of the last position is connected to the liquid supply port of [the] an evaporator of the next position of the plurality of evaporators.

28. (Amended) The heat absorber according to claim 27, further comprising a reservoir tank for adjusting an amount of liquid-phase working fluid in the [evaporator] last one of the plurality of evaporators, wherein the liquid ejection port of the last one of the plurality of evaporators is connected to the reservoir tank by the liquid line.

30. (Amended) The thermal transport system according to claim 29, further comprising a reservoir tank for adjusting an amount of liquid-phase working fluid in the [evaporator] last one of the plurality of evaporators, wherein the liquid ejection port of the last one of the plurality of evaporators is connected to the reservoir tank by the liquid line.

31. (Amended) A thermal transport method using a plurality of evaporators serially connected in different positions for receiving heat generated at a heat generation unit, comprising the steps of:

a) supplying substantially only liquid-phase working fluid to each evaporator of the plurality of evaporators;

b) accommodating, in each evaporator of the plurality of evaporators, liquid-phase working fluid supplied to each evaporator of the plurality of evaporators during the supplying step;

c) ejecting working fluid vaporized at each evaporator of the plurality of evaporators from a vapor ejection port of each evaporator of the plurality of evaporators; [and]

d) ejecting from a liquid ejection port of each evaporator of the plurality of evaporators substantially only liquid-phase working fluid supplied to each evaporator of the plurality of evaporators during the supplying step and accommodated by each evaporator of the plurality of evaporators during the accommodating step ;

condensing working fluid vaporized by the plurality of evaporators in a condenser;

receiving excess liquid-phase working fluid from a last evaporator of the plurality of evaporators in a reservoir tank connected to the last evaporator at a liquid ejection port thereof when a liquid-phase working fluid level is above a desired level; and

supplying liquid-phase working fluid to the last evaporator from the reservoir when a liquid-phase working fluid level is below the desired level.